

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
and ENHANCED NEW SOURCE REVIEW (ENSR)
OFFICE OF AIR MANAGEMENT**

**Jasper Engine Exchange, Inc.
6400 East Industrial Lane
English, Indiana 47118**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 and 326 IAC 2-1-3.2, as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F025-8935-00012	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date: March 6, 1998
Significant FESOP Revision No.: 025-10581-00012	Added Pages: 32a and 32b
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION A	SOURCE SUMMARY	5
A.1	General Information [326 IAC 2-8-3(b)]	5
A.2	Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]	5
A.3	Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]	6
A.4	FESOP Permit Applicability [326 IAC 2-8-2]	7
SECTION B	GENERAL CONDITIONS	8
B.1	Permit No Defense [326 IAC 2-1-10] [IC 13]	8
B.2	Definitions [326 IAC 2-8-1]	8
B.3	Permit Term [326 IAC 2-8-4(2)]	8
B.4	Enforceability [326 IAC 2-8-6]	8
B.5	Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3 (h)]	8
B.6	Severability [326 IAC 2-8-4(4)] [326 IAC 2-8-7(a)(3)]	8
B.7	Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]	8
B.8	Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]	8
B.9	Compliance Order Issuance [326 IAC 2-8-5(b)]	9
B.10	Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]	9
B.11	Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)]	9
B.12	Annual Compliance Certification [326 IAC 2-8-5(a)(1)]	9
B.13	Preventive Maintenance Plan [326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)] [326 IAC 1-6-3]	10
B.14	Emergency Provisions [326 IAC 2-8-12]	10
B.15	Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]	12
B.16	Permit Modification, Reopening, Revocation and Reissuance, or Termination	13
B.17	Permit Renewal [326 IAC 2-8-3(h)]	13
B.18	Administrative Permit Amendment [326 IAC 2-8-10]	14
B.19	Minor Permit Modification [326 IAC 2-8-11(a)] [326 IAC 2-8-11(b)(1) and (2)]	14
B.20	Significant Permit Modification [326 IAC 2-8-11(d)]	14
B.21	Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-8-11(b)]	15
B.22	Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-8-15(b)]	15
B.23	Operational Flexibility [326 IAC 2-8-15]	15
B.24	Construction Permit Requirement [326 IAC 2]	16
B.25	Inspection and Entry [326 IAC 2-8-5(a)(2)]	17
B.26	Transfer of Ownership or Operation [326 IAC 2-1-6] [326 IAC 2-8-10]	17
B.27	Annual Fee Payment [326 IAC 2-8-4(6)] [326 IAC 2-8-16]	17
B.28	Enhanced New Source Review [326 IAC 2]	17
SECTION C	SOURCE OPERATION CONDITIONS	18
	Emission Limitations and Standards [326 IAC 2-8-4(1)]	
C.1	Overall Source Limit [326 IAC 2-8]	18
C.2	Opacity [326 IAC 5-1]	18
C.3	Open Burning [326 IAC 4-1][IC 13-17-9]	18
C.4	Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]	18
C.5	Fugitive Dust Emissions [326 IAC 6-4]	18
C.6	Operation of Equipment [326 IAC 2-8-5(a)(4)]	18
C.7	Asbestos Abatement Projects - Accreditation [326 IAC 14-10] [326 IAC 18-1]	19

Testing Requirements [326 IAC 2-8-4(3)]	
C.8 Performance Testing [326 IAC 3-2.1]	19
Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]	
C.9 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]	19
C.10 Monitoring Methods [326 IAC 3]	19
C.11 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18-1] [40 CFR 61.140]	20
Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]	
C.12 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]	21
C.13 Compliance Monitoring Plan - Failure to Take Corrective Action [326 IAC 2-8-4(3)] . . .	21
C.14 Actions Related to Noncompliance Demonstrated by a Stack Test	22
Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]	
C.15 Monitoring Data Availability	22
C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)(B)]	23
C.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)]	24
Stratospheric Ozone Protection	
C.18 Compliance with 40 CFR 82 and 326 IAC 22-1	25
Construction Condition [326 IAC 2-1-3.2]	
General Construction Conditions	26
Effective Date of Permit	26
First Time Operation Permit	26
SECTION D.1 FACILITY OPERATION CONDITIONS	
Two (2) 17 mmBtu/hr natural gas-fired boilers	27
Emission Limitations and Standards [326 IAC 2-8-4(1)]	
D.1.1 Particulate Matter Emissions Limit [326 IAC 6-2-4]	27
Compliance Determination Requirements	
D.1.2 Testing Requirements [326 IAC 2-8-5(1)]	27
Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]	
D.1.3 NSPS Reporting Requirements [40CFR 60.48c(g), Subpart Dc]	27
D.1.4 NSPS Reporting Requirements [40CFR 60.40c, Subpart Dc]	27
D.1.5 Natural Gas Certification Submission	28
SECTION D.2 FACILITY OPERATION CONDITIONS	
Shotblasters and Molten Salt Bath Cleaning Line	29

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1	Particulate Matter Less Than Ten Microns Pollutants [326 IAC 2-8]	29
D.2.2	PM Allowable Emissions [326 IAC 6-3]	30
D.2.3	Preventive Maintenance Plan [326 IAC 2-8-4(9)]	30

Compliance Determination Requirements

D.2.4	Testing Requirements [326 IAC 2-8-5(1)]	30
-------	---	----

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.2.5	Parametric Monitoring	31
D.2.6	Baghouse Operating Parameters	31
D.2.7	Scrubber Operating Parameters	31
D.2.8	Visible Emission Notation	32

Record Keeping and Reporting Requirements

D.2.9	Record Keeping Requirements	32
-------	-----------------------------	----

SECTION D.3 FACILITY OPERATION CONDITIONS

Two (2) Surface Coating Booths, PTB 006 and PTB 007	32b
--	-----

Emission Limitation and Standards

D.3.1	Volatile Organic Compounds (VOC) [326 IAC 8-2-9]	32b
-------	--	-----

Compliance Determination Requirements

D.3.2	Testing Requirements	32b
D.3.3	Volatile Organic Compounds (VOC)	32b

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.3.4	Record Keeping Requirements	32b
-------	-----------------------------	-----

Certification Form	33
---------------------------	----

Certification for Natural Gas-Fired Boiler	34
---	----

Emergency/Deviation Form	35 & 36
---------------------------------	---------

Quarterly Compliance Report	37
------------------------------------	----

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM), and presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary plant that remanufactures old worn out vehicle engines, transmissions, etc.

Responsible Official: Michael Schwenk
Source Address: 6400 East Industrial Lane, English, Indiana 47118
Mailing Address: P. O. Box 650, Jasper, Indiana 47547
SIC Code: 3714
County Location: Crawford
County Status: Attainment for all criteria pollutants
Source Status: Federally Enforceable State Operating Permit (FESOP)
Minor Source, under PSD

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (1) Two (2) natural gas-fired boilers, each has a heat input rate of 17 million British Thermal Units (mmBtu/hr),
- (2) Four (4) black beauty abrasive shot blasters, identified as BLA021, BLA024 through BLA026 each has a nozzle flow rate of 1,020 pounds per hour (lb/hr). Each shot blaster is controlled by a baghouse, with the same ID as the shot blasters,
- (3) Four (4) steel shot blasters, identified as BLA027 through BLA030 each with a blast rate of 800 pounds per hour. Shot blaster BLA027 is controlled by baghouse DUC040, shot blaster BLA028 is controlled by baghouse DUC041, shot blaster BLA029 is controlled by baghouse DUC042, and shot blaster BLA030 is controlled by baghouse DUC043,
- (4) Five (5) soda blast cabinets, identified as BLA035, BLA036, BLA037, BLA038 and BLA039, each has a usage rate of 12.5 pounds per hour (lb/hr). Abrasive blasters BLA035, BLA036, BLA037, BLA038 and existing permitted blaster BLA022, with a rate of 1,020 lb/hr are controlled by the new baghouse DUC046.

Abrasive blaster BLA039 and existing permitted blasters BLA020, and BLA023, each has a rate of 1,020 lb/hr are controlled by existing baghouse DUC044.

- (5) Molten salt bath cleaning line, controlled by a wet scrubber (KOL15) which consists of the following eight (8) tanks:
 - (a) Tank KOL013, with a capacity of 1,200 gallons, using molten salt for cleaning. This tank is heated by a 2.5 mmBtu/hr natural gas burner,
 - (b) Tank KOL014, with a capacity of 1,200 gallons, using molten salt for cleaning. This tank is heated by a 2.5 mmBtu/hr natural gas burner,
 - (c) Tank KOL021, with a capacity of 1,800 gallons is used for quenching,
 - (d) Tank KOL022 with a capacity of 1,800 gallons is used for hot rinsing,
 - (e) Tanks KOL016 and KOL017, each has a capacity of 1,200 gallons and are used for acid derust,
 - (f) Tank KOL018 with a capacity of 1,200 is used for acid rinsing,
 - (g) Tank KOL019 with a capacity of 1,200 is used for alkaline derusting, and
 - (h) Tank KOL20 with a capacity of 1,200 is used for alkaline rinsing.

- (6) Two (2) surface coating booths, identified as PTB 006, and PTB 007. Each booth is capable of painting 145 engines/transmission per day, and equipped with high Volume Low Pressure (HVLP)

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source does not currently have any insignificant activities, as defined in 326 IAC 2-7-1(21).

- (1) Seven (7) natural gas-fired heaters, with a total heat input rate of 0.8 mmBtu/hr,
- (2) Four (4) natural gas-fired internal combustion engines, each with a heat input rate of 0.725 mmBtu/hr,
- (3) Two (2) Metal Inert Gas (MIG) stations, each has a maximum throughput of 9 lb/hr,
- (4) Four (4) stick welding stations, each with a maximum throughput of 1.6 lb/hr,
- (5) An Oxyacetylene flame-cutting operation, which has a cutting rate of 2 inches per minute,
- (6) One (1) engine skid wash, identified as CLT002, with a capacity of 375 gallons mixture of water and water based solvent,
- (7) One (1) open top degreaser, for transmission skid wash, identified as CLT032, with a capacity of 800 gallons mixture of water and water based solvent,
- (8) One (1) open top degreaser, for iron and steel small parts wash, identified as CLT040, with a capacity of 400 gallons mixture of water and water based solvent,
- (9) One (1) open top degreaser, for transmission prewash, identified as CLT086, with a capacity of 1800 gallons mixture of water and water based solvent,
- (10) One (1) open top degreaser, for engine block prewash, identified as CLT088, with a capacity of 1000 gallons mixture of water and water based solvent,
- (11) One (1) open top degreaser, for transmission intermediate wash, identified as CLT089, with a capacity of 1000 gallons mixture of water and water based solvent,
- (12) One (1) open top degreaser, for head prewash, identified as CLT090, with a capacity of 600 gallons mixture of water and water based solvent,
- (13) One (1) open top degreaser, for converter wash, identified as CLT091, with a capacity of 1000 gallon mixture of water and water based solvent,
- (14) One (1) open top degreaser, for aluminum head wash, identified as CLT092, with a capacity of 175 gallons of water and water based solvent,
- (15) One (1) open top degreaser, for differential/axle housing wash, identified as CLT093, with a capacity of 375 gallons mixture of water and water based solvent,
- (16) One (1) open top degreaser, for crank wash, identified as ADJ016, with a capacity of 350 gallons mixture of water and water based solvent,
- (17) One (1) open top degreaser, for block final wash 1, identified as ADJ027, with a capacity of 440 gallons mixture of water and water based solvent,

- (18) One (1) open top degreaser, for block final wash 2, identified as ADJ028, with a capacity of 440 gallons mixture of water and water based solvent,
- (19) One (1) open top degreaser, for head final wash, identified as ADJ029, with a capacity of 440 gallons mixture of water and water based solvent,
- (20) One (1) open top degreaser, for small parts wash, identified as ADJ030, with a capacity of 440 gallons mixture of water and water based solvent,
- (21) One (1) open top degreaser, for aluminum head wash, identified as ADJ031, with a capacity of 440 gallons mixture of water and water based solvent,
- (22) Water treatment operation.
- (23) One (1) natural gas-fired head oven, identified as PEQ047, with a heat input capacity of 60,000 British Thermal Units per hour (Btu/hr).
- (24) Four (4) test stands, used to test remanufactured engines. The test stand involves the setting up, and running the engine for a maximum of twelve (12) minutes, and consumes a maximum of 85.62 cubic feet (CF/hr) of natural gas per hour.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

SECTION D.2 FACILITY OPERATION CONDITIONS

- (2) Four (4) black beauty abrasive shot blasters, identified as BLA021, BLA024 through BLA026 each has a nozzle flow rate of 1,020 pounds per hour (lb/hr). Each shot blaster is controlled by a baghouse, with the same ID as the shot blasters,
- (3) Four (4) steel shot blasters, identified as BLA027 through BLA030 each with a blast rate of 800 pounds per hour. Shot blaster BLA027 is controlled by baghouse DUC040, shot blaster BLA028 is controlled by baghouse DUC041, shot blaster BLA029 is controlled by baghouse DUC042, and shot blaster BLA030 is controlled by baghouse DUC043,
- (4) Five (5) soda blast cabinets, identified as BLA035, BLA036, BLA037, BLA038 and BLA039, each has a usage rate of 12.5 pounds per hour (lb/hr). Abrasive blasters BLA035, BLA036, BLA037, BLA038 and existing permitted blaster BLA022, with a rate of 1,020 lb/hr are controlled by the new baghouse DUC046.

 Abrasive blaster BLA039 and existing permitted blasters BLA020, and BLA023, each has a rate of 1,020 lb/hr are controlled by existing baghouse DUC044.
- (5) Molten salt bath cleaning line, controlled by a wet scrubber (KOL15) which consists of the following eight (8) tanks:
 - (a) Tank KOL013, with a capacity of 1,200 gallons, using molten salt for cleaning. This tank is heated by a 2.5 mmBtu/hr natural gas burner,
 - (b) Tank KOL014, with a capacity of 1,200 gallons, using molten salt for cleaning. This tank is heated by a 2.5 mmBtu/hr natural gas burner,
 - (c) Tank KOL021, with a capacity of 1,800 gallons is used for quenching,
 - (d) Tank KOL022 with a capacity of 1,800 gallons is used for hot rinsing,
 - (e) Tanks KOL016 and KOL017, each has a capacity of 1,200 gallons and are used for acid derust,
 - (f) Tank KOL018 with a capacity of 1,200 is used for acid rinsing,
 - (g) Tank KOL019 with a capacity of 1,200 is used for alkaline derusting, and
 - (h) Tank KOL20 with a capacity of 1,200 is used for alkaline rinsing.

Operation Conditions

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Particulate Matter Less Than Ten Micron (PM10) [326 IAC 2-8]

The PM10 emissions from the following equipment shall be limited as follows:

Shotblaster's Baghouse ID	PM10 Limit (pounds per hour)	Shotblaster's Baghouse ID	PM10 Limit (pounds per hour)
BLA021	1.24	DUC042	0.5
BLA024	1.24	DUC043	0.5
BLA025	1.24	DUC044	4.74
BLA026	1.24	DUC046	10.0
DUC040	0.5	TOTAL	21.7
DUC041	0.5		

D.2.2 PM Allowable Emissions [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the following facilities shall not exceed the following PM emissions:

(a)

Shot Blaster's Baghouses	Process Weight (ton/hr)	PM Allowable Emissions (lb/hr)
BLA021	0.52	2.64
BLA024	0.52	2.64
BLA025	0.52	2.64
BLA026	0.52	2.64
DUC040	0.40	2.20
DUC041	0.40	2.20
DUC042	0.40	2.20
DUC043	0.40	2.20
DUC046	0.545	2.7
DUC044	1.036	4.2
TOTAL		26.26

(b) The salt bath cleaning line's PM emissions shall be limited to 16.5 pounds per hour.

The allowable PM emissions in items (a) and (b) of this condition shall be determined using the following equation:

$$E = 4.10P^{0.67} \quad \text{where: } E = \text{rate of emission in pounds per hour,}$$

$$P = \text{process weight in tons per hour, if}$$

$$P \text{ is equal to or less than 60,000 lbs/hr (30 tons/hr)}$$

D.2.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.2.4 Testing Requirements [326 IAC 2-8-5(1)]

- (a) Pursuant to 326 IAC 2-5.1-3 (Permit Requirements) a compliance stack tests shall be performed for PM and PM10 from baghouses DUC044 and DUC046. The pressure drop range for baghouse DUC046 shall be established that corresponds to the PM10 limit in D.2.1. The tests shall be performed within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. PM-10 includes filterable and condensable PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.
- (b) Testing of the shotblasters baghouses BLA021, BLA 024, BLA026, DUC040, DUC041, DUC042, DUC043 and the molten salt bath cleaning line is not required by this permit. However, if testing is required, compliance with the PM and PM10 limits specified

in Condition D.2.1 and D.2.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing. This does not preclude testing requirements on this facility under 326 IAC 2-8-4 and 326 IAC 2-8-5.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.2.5 Parametric Monitoring

The Permittee shall record the total static pressure drop range across the shotblaster baghouse DUC046 at least once daily when the shotblasters being controlled are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across baghouse DUC046 shall be maintained within the range of 0.5 and 5.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

D.2.6 Baghouse Operating Parameters

- (a) The baghouses BLA021, BLA 024, BLA026, DUC040, DUC041, DUC042, DUC043 and DUC044 shall be operated at all times when the shotblaster being controlled is in operation.
- (b) An inspection shall be performed each calendar quarter of all the baghouses BLA021, BLA 024, BLA026, DUC040, DUC041, DUC042, DUC043 and DUC044. Defective bags shall be replaced. A record shall be kept of the results of the inspection and the number of bags replaced.
- (c) In the event that a bag's failure has been observed:
 - (i) The affected compartments will be shut down immediately until the failed units have been replaced.
 - (ii) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.
- (d) Emissions do not violate 326 IAC 6-4 (Fugitive Dust Emissions).

D.2.7 Scrubber Operating Parameters

The scrubber (KOL015) shall be operated at all times when the molten salt bath cleaning line is in operation.

- (a) The Permittee shall monitor and record the pressure drop and flow rate of the scrubber, at least once per week. The Preventive Maintenance Plan for the scrubber shall contain troubleshooting contingency and corrective actions for when the acid content, pressure drop and flow rate readings are outside of the normal range for any one reading.
- (b) The instruments used for determining the pressure drop and flow rate shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.
- (c) The gauge employed to take the pressure drop across the scrubber or any part of the facility shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within $\pm 2\%$ of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.

- (d) An inspection shall be performed each calendar quarter of the scrubber. Defective scrubber part(s) shall be replaced. A record shall be kept of the results of the inspection and the number of scrubber part(s) replaced.
- (e) In the event that a scrubber's failure has been observed:
 - (i) The affected process will be shut down immediately until the failed unit has been replaced.
 - (ii) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

D.2.8 Visible Emissions Notations

- (a) Daily visible emission notations of the shotblasters' baghouse DUC046 and molten salt bath cleaning line's wet scrubber stack exhaust shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.9 Record Keeping Requirements

- (a) To document compliance with Condition D.2.5, and D.2.7 the Permittee shall maintain the following:
 - (1) Daily records of the following operational parameters during normal operation:
 - (A) Inlet and outlet differential static pressure;
 - (B) Cleaning cycle: frequency and differential pressure; and
 - (C) Scrubbant flow rate.
 - (2) Documentation of all response steps implemented, per event .

- (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
 - (4) Quality Assurance/Quality Control (QA/QC) procedures.
 - (5) Operator standard operating procedures (SOP).
 - (6) Manufacturer's specifications or its equivalent.
 - (7) Equipment "troubleshooting" contingency plan.
- (b) To document compliance with Condition D.2.8, the Permittee shall maintain records of daily visible emission notations of the baghouse DUC046 and wet scrubber stack exhausts.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 FACILITY OPERATION CONDITIONS

- (6) Two (2) surface coating booths, identified as PTB 006, and PTB 007. Each booth is capable of painting 145 engines/transmissions per day, and equipped with High Volume Low Pressure (HVLP) gun. The PM overspray from each booth is controlled by dry filters.

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Volatile Organic Compound (VOC) [326 IAC 8-2-9]

-
- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating applied to the remanufactured engines and transmissions shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for extreme performance coatings.
- (b) Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Compliance Determination Requirements

D.3.2 Testing Requirements

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if these facilities are in compliance. If testing is required by IDEM, compliance with the VOC content limit specified in Condition D.3.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.3.3 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.3.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.3.4 Record Keeping Requirements

-
- (a) To document compliance with Condition D.3.1, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition D.3.1.
- (1) The amount of VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The cleanup solvent usage for each month;
 - (4) The total VOC usage for each month; and
 - (5) The weight VOCs emitted for each compliance period.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) and ENSR
QUARTERLY COMPLIANCE REPORT**

Source Name: Jasper Engine Exchange, Inc.
Source Address: 6400 East Industrial Lane, English, Indiana 47118
Mailing Address: P. O. Box 650, Jasper, Indiana 47547
FESOP No.: F-025-8935-00012
Significant FESOP Revision: 025-10581-00012

Months: _____ to _____ Year: _____

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly. Any deviation from the requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify zero in the column marked "No Deviations".

LIST EACH COMPLIANCE REQUIREMENT EXISTING FOR THIS SOURCE:

Requirement (eg. Permit Conditions D.1.1, D.2.1, D.2.2 and D.3.1)	Number of Deviations	Date of each Deviations	No Deviations

Form Completed By: _____
Title/Position: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Significant Federally Enforceable State Operating Permit Revision

Source Background and Description

Source Name:	Jasper Engine Exchange, Inc.
Source Location:	6400 East Industrial Lane, English, Indiana 47118
County:	Crawford
SIC Code:	3714
Operation Permit No.:	F025-8935-00012
Operation Permit Issuance Date:	March 6, 1998
Significant FESOP Revision No.:	025-10581-00012
Permit Reviewer:	Aida De Guzman

The Office of Air Management (OAM) has reviewed a Significant Permit Revision application to the issued Federally Enforceable State Operating Permit (FESOP) from Jasper Engine Exchange, Inc. relating to the construction and operation of the following new facilities:

- (a) Five (5) soda blast cabinets, identified as BLA035, BLA036, BLA037, BLA038 and BLA039, each has a usage rate of 12.5 pounds per hour (lb/hr). Abrasive blasters BLA035, BLA036, BLA037, BLA038 and existing permitted blaster BLA022, with a rate of 1,020 lb/hr are controlled by the existing exempted baghouse DUC046.

Abrasive blaster BLA039 and existing permitted blaster BLA023, which has a rate of 1,020 lb/hr are controlled by a new baghouse DUC044.
- (b) Two (2) surface coating booths, identified as PTB 006, and PTB 007. Each booth is capable of painting 145 engines/transmissions per day, and equipped with High Volume Low Pressure (HVLP) gun. The PM overspray from each booth is controlled by dry filters.
- (c) One (1) natural gas-fired head oven, identified as PEQ047, with a heat input capacity of 60,000 British Thermal Units per hour (Btu/hr).
- (d) Four (4) test stands, used to test remanufactured engines. The test stand involves the setting up, and running the engine for a maximum of twelve (12) minutes, and consumes a maximum of 85.62 cubic feet (CF/hr) of natural gas per hour.

Facilities in items (c) and (d) are insignificant activities.

History

On January 28, 1999, the source has submitted a Significant Permit Revision to the FESOP issued on March 6, 1998, due to the proposed construction of facilities above.

Existing Approvals

The source is operating under the issued FESOP F025-8935. This is the first Significant Revision that would be made to their FESOP.

Recommendation

The staff recommends to the Commissioner that the Significant Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 28, 1999.

Emission Calculations

- (a) Five (5) Soda Blasters (BLA035 thru BLA039):
Usage rate 100 lb soda abrasive per 8 hours = 12.5 lb/hr
It is assumed that what is used is all wasted, since there is no recycling involved with the abrasive captured by the baghouses:

Methodology:

Uncontrolled Emissions, ton/yr = Abrasive usage rate, lb/hr * 8760 hr/yr * ton/2000 lb * no. of blasters

Controlled Emissions, ton/yr = Uncontrolled emissions * (100% - % Efficiency of baghouse) / 100

Facility ID	Abrasive Usage Rate (lb/hr)	PM Uncontrolled = PM10 Uncontrolled Emissions (ton/yr)	PM Controlled = PM10 Controlled Emission (ton/yr)
BLA035	12.5	54.75	0.5475
BLA036	12.5	54.75	0.5475
BLA037	12.5	54.75	0.5475
BLA038	12.5	54.75	0.5475
BLA039	12.5	54.75	0.5475
TOTAL		273.75	2.74

Note: *Facility that has already been permitted in the FESOP. However, they will be connected to baghouses DUC046 and DUC044 instead of individual baghouses indicated in the FESOP.

Facility ID	Media Density (lb/ft ³)	Nozzle Diameter (inches)	Nozzle Pressure (psig)	Nozzle Flow Rate (lb/hr)	Emission Factor (lb/lb)	PM Uncontrolled Emissions (ton/yr)	PM 10 Uncontrolled Emission (ton/yr)	PM Controlled Emissions (ton/yr)	PM10 Controlled Emissions (ton/yr)
*BLA022	156 _{grit}	50	80	1040	0.010 lbPM/lb abrasive 0.70 lb PM10/lb PM	45.5	31.85	0.455	0.3185
*BLA023	156 _{grit}	50	80	1040	0.010 lbPM/lb abrasive 0.70 lb PM10/lb PM	45.5	31.85	0.455	0.3185

(b) Surface Coating VOC and HAPs Emissions: See Page 1 of 2 and 2 of 2 TSD Appendix A for detailed calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

Pollutant	Potential To Emit (tons/year)
PM	277.2
PM-10	277.2
SO ₂	0.0
VOC	9.62
CO	0.0
NO _x	0.0

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Glycol Ethers	2.28
MEK	0.36
Triethylamine	0.32
TOTAL	2.96

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM and PM10 are equal to or greater than 100 tons per year. The source is operating under the issued FESOP F025-8935. The source still intends to operate under this FESOP, therefore, the PM and PM10 level of emissions from the proposed facilities constitute a Significant FESOP Revision.

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Proposed Soda Blasters, DUC044 & DUC046	59.13	59.13	0.0	9.92	0.0	0.0	2.96
Facilities in the FESOP:							
Shotblasters, BLA020, BLA021, BLA024 thru BLA026, DUC040, DC041, DUC042 & DUC043	35.9	35.9	0.0	0.0	0.0	0.0	0.0
2 Boilers w/ 17 mmBtu/hr each	2.0	2.0	0.1	0.4	5.2	12.1	0.0
Insignificant activities	1.93	1.93	0.0	0.1	0.4	1.6	0.0
Total Emissions	99.02	99.02	0.0	9.92	0.0	0.0	2.96

The following summarizes the permit conditions and requirements:

- (a) The Permittee shall record the total static pressure drop of each baghouse used to control the PM and PM10 from the shot blasters, at least once weekly when the shot blasting is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across baghouse DUC046 shall be maintained at a pressure drop range of 0.5 to 5 inches of water or a range established during the latest stack test. Baghouse DUC044 shall be maintained at a pressure drop range 9 to 11 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.
- (b) Daily visible emission notations on the baghouses stacks.

Federal Rule Applicability

- (a) New Source Performance Standards (NSPS):
There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) National Emission Standards for Hazardous Air Pollutants (NESHAPs)
There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because its potential to emit for any pollutant is less than 100 tons per year.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at Spray Booths PTB006 and

PTB007 shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for extreme performance coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source and calculations made (see Page 1 of 2 TSD App A for detailed calculations), the spray booths are in compliance with this requirement.

326 IAC 6-3-2 (Process Operations)

- (a) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the soda blasters BLA035, BLA036, BLA037, BLA038 and BLA022 controlled by baghouses DUC046 shall be limited using the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \\ = 4.10 (.535)^{0.67}$$

$$= 2.7 \text{ lb/hr} \\ = 11.8 \text{ ton/yr}$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

$$= [(4 \text{ blasters } (12.5 \text{ lb/hr}) + (1020 \text{ lb/hr}) * (\text{ton}/ 2000 \text{ lb})] \\ = 0.535 \text{ ton/hr}$$

Process weight rate for each BLA035, BLA036, BLA037, BLA038 - 12.5 lb/hr
Process weight rate for BLA022 - 1020 lb/hr

The soda blasters are in compliance with the rule, because their controlled PM emissions are less than the limit in the rule.

- (b) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the soda blasters BLA039 and BLA023, controlled by baghouses DUC044 shall be limited using the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$\begin{array}{ll} E = 4.10 P^{0.67} & \text{where } E = \text{rate of emission in pounds per hour and} \\ = 4.10 (.516)^{0.67} & P = \text{process weight rate in tons per hour} \\ = 2.6 \text{ lb/hr} & = [(12.5 \text{ lb/hr}) + (1020 \text{ lb/hr}) * (\text{ton} / 2000 \text{ lb})] \\ = 11.37 \text{ ton/yr} & = 0.516 \text{ ton/hr} \end{array}$$

Process weight rate for BLA039 - 12.5 lb/hr
Process weight rate for BLA023 - 1020 lb/hr

The soda blasters are in compliance with the rule, because their controlled PM emissions are less than the limit in the rule.

326 IAC 2-4.1-1 (New Source Air Toxics Control)

This rule is not applicable, because the source is not major for HAPs emissions.
See Page 2 of 2 TSD Appendix A spreadsheet calculations for detailed air toxic calculations.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in permit Section D are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in permit Section D. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

- (a) Shot blasters baghouses shall be in operation at all times when the shot blasters are in operation.
- (b) The Permittee shall record the total static pressure drop of each baghouse used to control the PM and PM10 from the shot blasters, at least once weekly when the shot blasting is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across baghouse DUC046 shall be

maintained at a pressure drop range of 0.5 to 5 inches of water or a range established during the latest stack test. Baghouse DUC044 shall be maintained at a pressure drop range 9 to 11 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

Changes in the FESOP

The construction of the new equipment will result in the Significant Revision of the Federally Enforceable Operating Permit (FESOP F025-8935), issued on March 6, 1998. The revision is as follows (changes are bolded and deletion are strike-through for emphasis):

- (a) *Section D.2. project description table on Page 29 of 37 of the issued FESOP, is revised to include the proposed soda shot blasters and to include the wet scrubber, which was overlooked in the description.*

Black beauty abrasive shot blasters, BLA022 and BLA023 were permitted in the FESOP and controlled by their own baghouse. In this application BLA022 and BLA023 blasters have been modified and will be controlled by the existing exempted baghouse DUC046 and new baghouse DUC044.

The revision is as follows:

- (2) ~~Six (6)~~ **Five (5)** black beauty abrasive shot blasters, identified as BLA020, **BLA021, BLA024** through BLA026 each has a nozzle flow rate of 1,020 pounds per hour (lb/hr). Each shot blaster is controlled by a baghouse, with the same ID as the shot blasters,

(3) Four (4) steel shot blasters, identified as BLA026 through BLA029 each with a blast rate of 800 pounds per hour. Shot blaster BLA026 is controlled by baghouse DUC040, shot blaster BLA027 is controlled by baghouse DUC041, shot blaster BLA028 is controlled by baghouse DUC042, and shot blaster BLA029 is controlled by baghouse DUC043, ~~and~~

(4) **Five (5) soda blast cabinets, identified as BLA035, BLA036, BLA037, BLA038 and BLA039, each has a usage rate of 12.5 pounds per hour (lb/hr). Abrasive blasters BLA035, BLA036, BLA037, BLA038 and existing permitted blaster BLA022, with a rate of 1,020 lb/hr are controlled by the existing exempted baghouse DUC046.**

Abrasive blaster BLA039 and existing permitted blaster BLA023, which has a rate of 1,020 lb/hr are controlled by a new baghouse DUC044.

~~(4)~~ (5) Molten salt bath cleaning line, **controlled by a wet scrubber (KOL15)** which consists of the following eight (8) tanks:

 - (a) Tank KOL013, with a capacity of 1,200 gallons, using molten salt for cleaning. This tank is heated by a 2.5 mmBtu/hr natural gas burner,
 - (b) Tank KOL014, with a capacity of 1,200 gallons, using molten salt for cleaning. This tank is heated by a 2.5 mmBtu/hr natural gas burner,
 - (c) Tank KOL021, with a capacity of 1,800 gallons is used for quenching,
 - (d) Tank KOL022 with a capacity of 1,800 gallons is used for hot rinsing,
 - (e) Tanks KOL016 and KOL017, each has a capacity of 1,200 gallons and are used for acid derust,
 - (f) Tank KOL018 with a capacity of 1,200 is used for acid rinsing,
 - (g) Tank KOL019 with a capacity of 1,200 is used for alkaline derusting, and
 - (h) Tank KOL20 with a capacity of 1,200 is used for alkaline rinsing.

- (b) Condition D.2.1 PM10 Emission Limit on Page 29 of 37 is revised to incorporate the additional equipment. Also, the PM10 tons per year limit will be changed to pounds per hour, to make it federally and practically enforceable, subtracting the 2 ton/yr PM10 emissions from the two (2) 17 mmBtu/hr natural gas fired boilers in Section D.1, 0.2 ton/yr for the molten salt natural gas-fired burners and the 1.73 ton/yr PM10 emission from the insignificant activities.

Limited PM10 from the above equipment:

$$99 \text{ ton/yr} - 3.93 \text{ ton/yr} = 95.07 \text{ ton/yr} * \text{yr}/8760 \text{ hr} * 2000 \text{ lb/ton} \\ = 21.7 \text{ lb/hr}$$

The 21.7 lb/hr limit is prorated among the baghouses as follows:

Shotblaster's Baghouse ID	PM10 Limit
BLA020	1.24
BLA021	1.24
BLA024	1.24
BLA025	1.24
BLA026	1.24
DUC040	0.5
DUC041	0.5
DUC042	0.5
DUC043	0.5
DUC046	10.0
DUC044	3.5
TOTAL	21.7

Methodology:

$$\text{PM10 Emissions, lb/hr} = \frac{\text{shotblaster's baghouse emission, lb/hr} * \text{Total Shotblasters PM10 limit, 21.7 lb/hr}}{\text{Total Shotblasters' baghouses emissions, lb/hr}}$$

The revision is as follows:

D.2.1 Particulate Matter Less Than Ten Micron (PM10) [326 IAC 2-8]

The source PM10 emissions from the following equipment shall be limited to 99 tons per twelve month period as follows:

Shotblaster's Baghouse ID	PM10 Limit
BLA020	1.24
BLA021	1.24
BLA024	1.24
BLA025	1.24
BLA026	1.24
DUC040	0.5

DUC041	0.5
DUC042	0.5
DUC043	0.5
DUC046	10.0
DUC044	3.5
TOTAL	21.7

Compliance with this condition and conditions D.2.5 and D.2.6 will make 326 IAC 2-7 not applicable.

- (c) Condition D.2.2 PM Allowable Emissions on Page 29 of 37 of the issued FESOP, is revised to accommodate the changes made in the control equipment for the permitted shotblasters, and to include the proposed new soda blasters. The revision is as follows:

Shot Blaster's Baghouses	Process Weight (ton/hr)	PM Allowable Emissions (lb/hr)
BLA020	0.52	2.64
BLA021	0.52	2.64
BLA022	0.52	2.64
BLA023	0.52	2.64
BLA024	0.52	2.64
BLA025	0.52	2.64
BLA026	0.52	2.64
DUC040	0.40	2.20
BLA027 DUC041	0.40	2.20
BLA028 DUC042	0.40	2.20
BLA029 DUC043	0.4	2.20
DUC046	0.545	2.7
DUC044	0.526	2.6
TOTAL		27.4364

- (d) *Each new soda shotblaster (BLA035, BLA036, BLA037, BLA038 and BLA039) has a potential emissions greater than 40 tons per year, and which uses a control equipment to limit the PTE below the Title V applicability level. Based on the "Stack Testing Guidance" dated January 1, 1999, facilities with this level of emissions are required to be stack tested to determine compliance with the rule. Therefore, the baghouses that control these soda blasters will be required to do a compliance stack tests. The following condition is added in the FESOP, under number D.2.4 and numbered item (a). The existing condition D.2.4 is numbered as item (b), and is revised to clarify the baghouses that do not require to be stack tested:*

D.2.4 Testing Requirements [326 IAC 2-8-5(1)]

- (a) Pursuant to 326 IAC 2-5.1-3 (Permit Requirements) a compliance stack tests shall be performed for PM and PM10 from baghouses DUC044 and DUC046. The pressure drop range for baghouse DUC046 shall be established that corresponds to the PM10 limit in D.2.1. The tests shall be performed within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. PM-10 includes filterable and condensible PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.
- (b) Testing of the shotblasters baghouses BLA020, BLA021, BLA 024, BLA026, DUC040, DUC041, DUC042, DUC043 and the molten salt bath cleaning line is not required by this permit. However, if testing is required, compliance with the PM and PM10 limits specified in Condition D.2.1 and D.2.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing. This does not preclude testing requirements on this facility under 326 IAC 2-8-4 and 326 IAC 2-8-5.
- (e) *The following Parametric Monitoring condition for baghouse DUC046 is added and numbered D.2.5.*

D.2.5 Parametric Monitoring

The Permittee shall record the total static pressure drop range across the shotblaster baghouse DUC046 at least once daily when the shotblasters being controlled are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across baghouse DUC046 shall be maintained within the range of 0.5 and 5.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

- (f) *Condition D.2.7, Page 31 of 37 in the issued FESOP, now D.2.8 is revised to include the baghouses DUC044 and DUC046.*

D.2.7 8 Visible Emissions Notations

- (a) Daily visible emission notations of the **shotblasters' baghouse DUC046 and** molten salt bath cleaning line's wet scrubber stack exhausts shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Subsequent conditions are renumbered accordingly.

- (g) *Condition D.2.8, Page 32 of 37 of the issued FESOP, now D.2.9 is revised to incorporate the changes as follows:*

D.2.8 9 Record Keeping Requirements

- (a) To document compliance with Condition D.2.6 5 and D.2.7 the Permittee shall maintain the following:
- (1) Daily records of the following operational parameters during normal operation:
 - (A) Inlet and outlet differential static pressure;
 - (B) Cleaning cycle: frequency and differential pressure; and
 - (C) Scrubbant flow rate.
 - (2) Documentation of all response steps implemented, per event .
 - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
 - (4) Quality Assurance/Quality Control (QA/QC) procedures.
 - (5) Operator standard operating procedures (SOP).
 - (6) Manufacturer's specifications or its equivalent.
 - (7) Equipment "troubleshooting" contingency plan.
- (b) To document compliance with Condition D.2.7 8, the Permittee shall maintain records of daily visible emission notations of the **baghouse DUC046, and** wet scrubber stack exhausts.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.
- (h) *Section 3 is added in the FESOP for the proposed surface coating booths PTB006 and PTB007.*

SECTION D.3

FACILITY OPERATION CONDITIONS

- (5) Two (2) surface coating booths, identified as PTB 006, and PTB 007. Each booth is capable of painting 145 engines/transmissions per day, and equipped with High Volume Low Pressure (HVLV) gun. The PM overspray from each booth is controlled by dry filters.

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Volatile Organic Compound (VOC) [326 IAC 8-2-9]

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating applied to the remanufactured engines and transmissions shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for extreme performance coatings.
- (b) Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Compliance Determination Requirements

D.3.2 Testing Requirements

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if these facilities are in compliance. If testing is required by IDEM, compliance with the VOC content limit specified in Condition D.3.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.3.3 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.3.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, and Northern Regional Office reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.3.4 Record Keeping Requirements

- (a) To document compliance with Condition D.3.1, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition D.3.1.
 - (1) The amount of VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The cleanup solvent usage for each month;
 - (4) The total VOC usage for each month; and
 - (5) The weight VOCs emitted for each compliance period.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.
- (i) The following insignificant activities are added in Section A.3 of the issued FESOP:

- (1) One (1) natural gas-fired head oven, identified as PEQ047, with a heat input capacity of 60,000 British Thermal Units per hour (Btu/hr).
- (2) Four (4) test stands, used to test remanufactured engines. The test stand involves the setting up, and running the engine for a maximum of twelve (12) minutes, and consumes a maximum of 85.62 cubic feet (CF/hr) of natural gas per hour.

Conclusion

The operation of the soda blasters shall be subject to the conditions of the attached proposed **Significant FESOP Revision 025-10581-00012.**

**Indiana Department of Environmental Management
Office of Air Management**

Addendum to the
Technical Support Document for a Significant Federally Enforceable State Operating
Permit (FESOP) Revision

**Jasper Engine Exchange, Inc.
6400 East Industrial Lane
English, Indiana 47118**

Significant FESOP Revision 025-10581, Plt ID-025-00012

On April 28, 1999, the Office of Air Management (OAM) had a notice published in the Clarion News, English, Indiana, stating that Jasper Engine Exchange, Inc. had applied for a Significant FESOP Revision to construct and operate new soda blasters, coating booths, oven and test engine stands used in the re-manufacture of engines and transmissions, with baghouses to control the PM and PM10 emissions. The notice also stated that OAM proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On March 26, 1999, Jasper Engine Exchange, Inc. submitted a request for an Administrative Amendment to their FESOP while their Significant FESOP Revision was being public noticed. The request for an Administrative Amendment to their FESOP is incorporated in this Revision. The amendment request is as follows (changes are bolded and deletion are strike-through for emphasis):

1. *Sand Blast Cabinet BLA020, is currently permitted in the issued FESOP and controlled by its own individual baghouse of the same ID number. The amendment requests that this blaster be disconnected from its own individual baghouse, and instead it will be connected to baghouse DUC044 to control its PM and PM10 emissions.*

Condition D.2.1 of the FESOP Revision is revised to incorporate the changes. In order to not deviate much from the conditions that were public noticed by incorporating the amendment, the allowable PM10 emissions from the BLA020, will just be added to the baghouse DUC044, where it will now be connected. See below table.

Shotblaster's Baghouse ID	PM10 Limit
BLA020	1.24
BLA021	1.24
BLA024	1.24
BLA025	1.24
BLA026	1.24
DUC040	0.5
DUC041	0.5

DUC042	0.5
DUC043	0.5
DUC046	10.0
DUC044	$3.5 + 1.24 = 4.74$
TOTAL	21.7

2. The amendment will also result in the revision of condition D.2.2 PM Allowable Emissions as follows:

D.2.2 PM Allowable Emissions [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the following facilities shall not exceed the following PM emissions:

(a)

Shot Blaster's Baghouses	Process Weight (ton/hr)	PM Allowable Emissions (lb/hr)
BLA020	0.52	2.64
BLA021	0.52	2.64
BLA024	0.52	2.64
BLA025	0.52	2.64
BLA026	0.52	2.64
DUC040	0.40	2.20
DUC041	0.40	2.20
DUC042	0.40	2.20
DUC043	0.4	2.20
DUC046	0.545	2.7
DUC044	$0.526 + 0.51 = 1.03$	2.6 4.2
TOTAL		27.3 26.24

On May 27, 1999, Jasper Engine Exchange, Inc., submitted comments on the proposed Significant FESOP Revision. The summary of the comments is as follows:

Comment 1: In Section A.2, Source Summary, the equipment number BLA026 is used twice. In A.2(3) we request to renumber the four steel blasters from BLA026 through BLA029 into BLA027 through BLA030. The baghouse assignments should also be adjusted accordingly for these blasters.

Comment 2: Throughout the revision, baghouses DUC044 and DUC046 have been reversed numerically. DUC044 is the existing baghouse and DUC046 is the new baghouse.

Response to 1 & 2: Section A.2 Emission Units and Control Equipment Summary is revised as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (1) Two (2) natural gas-fired boilers, each has a heat input rate of 17 million British Thermal Units (mmBtu/hr),
- (2) ~~Five~~ **Four (5 4)** black beauty abrasive shot blasters, identified as ~~BLA020,~~ BLA021, BLA024 through BLA026 each has a nozzle flow rate of 1,020 pounds per hour (lb/hr). Each shot blaster is controlled by a baghouse, with the same ID as the shot blasters,
- (3) Four (4) steel shot blasters, identified as BLA026 ~~7~~ through BLA029 ~~30~~ each with a blast rate of 800 pounds per hour. Shot blaster BLA026 ~~7~~ is controlled by baghouse DUC040, shot blaster BLA027 ~~8~~ is controlled by baghouse DUC041, shot blaster BLA028 ~~9~~ is controlled by baghouse DUC042, and shot blaster BLA029 ~~30~~ is controlled by baghouse DUC043,
- (4) Five (5) soda blast cabinets, identified as BLA035, BLA036, BLA037, BLA038 and BLA039, each has a usage rate of 12.5 pounds per hour (lb/hr). Abrasive blasters BLA035, BLA036, BLA037, BLA038 and existing permitted blaster BLA022, with a rate of 1,020 lb/hr are controlled by the ~~existing-exempted~~ **new** baghouse DUC046.

Abrasive blaster BLA039 and existing permitted blasters **BLA020, and** BLA023, each has a rate of 1,020 lb/hr are controlled by ~~a new-existing~~ **new** baghouse DUC044.

The above changes are also reflected in Section D.2

Comment 3: Section D.2.1 of the FESOP Revision, refers to PM10 limit for specific equipment. Please indicate whether these limits are expressed in pounds per hour, or tons per year.

Response 3: Section D.2.1 will be revised to indicate that the limits are in pounds per hour.

Comment 4: Section D.3.4(a)(1) requires that "solvent usage records should differentiate between solvents added to coatings and solvents used for cleanup". Since the coatings we will be using will not require any addition of solvents, we request that this requirement be removed.

Response 4: Although this condition requirement may not apply at this time, it is possible the source may use solvents as additive to the coatings use and for cleanup purposes in the future. To eliminate a lengthy addition to the permit in the future, the wording will be kept for now.

Upon further review, the Office of Air Management (OAM) has deleted the regional office referenced in Condition D.3.3 on page 32b of 37 of the FESOP Revision. The condition requires to list only the local agency and Crawford County has no local agency.

**Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

Page 1 of 2 TSD App A

**Company Name: Jasper Engine Exchange, Inc.
Address City IN Zip: 6400 East Industrial Lane, English, IN 47118
Significant FESOP Revision: 025-10581
Plt ID: 025-00012
Reviewer: Aida De Guzman
Date: Mar. 4, 1995**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Booth PTB 006																
S. White (F75W551)	9.8	58.60%	45.4%	13.2%	0.0%	0.00%	0.04000	6.040	1.29	1.29	0.31	7.51	1.37	1.72	ERR	60%
M.T. Gray (F77A503)	8.5	74.00%	56.7%	17.3%	0.0%	0.00%	0.04000	6.040	1.47	1.47	0.35	8.52	1.55	0.93	ERR	60%
M.T. Gray (77A567)	8.8	63.80%	54.6%	9.2%	0.0%	32.00%	0.04000	6.000	0.81	0.81	0.19	4.64	0.85	1.33	2.52	60%
Booth PTB 007																
S. White (F75W551)	9.8	58.60%	45.4%	13.2%	0.0%	0.00%	0.04000	6.040	1.29	1.29	0.31	7.51	1.37	1.72	ERR	60%
M.T. Gray (F77A503)	8.5	74.00%	56.7%	17.3%	0.0%	0.00%	0.04000	6.040	1.47	1.47	0.35	8.52	1.55	0.93	ERR	60%
M.T. Gray (77A567)	8.8	63.80%	54.6%	9.2%	0.0%	32.00%	0.04000	6.000	0.81	0.81	0.19	4.64	0.85	1.33	2.52	60%
VM&P Naphta	6.2	100.00%	0.0%	100.0%	0.0%	0.00%	0.04000	6.000	6.20	6.20	1.49	35.71	6.52	0.00	ERR	0%

Note: VM&P Naphta is used to clean the engines in Booth PTB 007, before painting them (naphta is sprayed from plastic bottles).

State Potential Emissions	Add worst case coating to all solvents	2.11	52.75	9.62	3.44
----------------------------------	---	-------------	--------------	-------------	-------------

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
HAP Emission Calculations

Page 2 of 2 TSD App A

Company Name: Jasper Engine Exchange, Inc.
Address City IN Zip: 6400 East Industrial Lane, English, IN 47118
Significant FESOP Revision: 025-10581
Plt ID: 025-00012
Reviewer: Aida De Guzman
Date: 03/19/99

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % MEK	Weight % Glycol Ether	Weight % Triethylamine	Glycol Ethers Emissions (ton/yr)	MEK Emissions (ton/yr)	Triethylamine Emissions (ton/yr)
Booth PTB 006									
G. White (F75W551)	9.8	0.040000	6.04	0.00%	11.00%	1.50%	1.14	0.00	0.16
M.T. Gray (F77A503)	8.5	0.040000	6.04	2.00%	10.00%	0.90%	0.99	0.18	0.08
M.T. Gray (77A567)	8.8	0.040000	6.04	0.00%	0.00%	0.00%	0.00	0.00	0.00
Booth PTB 007									
G. White (F75W551)	9.8	0.040000	6.04	0.00%	11.00%	1.50%	1.14	0.00	0.16
M.T. Gray (F77A503)	8.5	0.040000	6.04	2.00%	10.00%	0.90%	0.99	0.18	0.08
M.T. Gray (77A567)	8.8	0.040000	6.04	0.00%	0.00%	0.00%	0.00	0.00	0.00

Total Single HAP Emissions (ton/yr)	2.28	0.36	0.32
Total Combined HAPs Emissions (ton/yr)	2.96		

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs